CLAIMS

I claim:

1. A method for decoding a received vector symbol which corresponds to a binary string having a plurality of bit positions, comprising:

5   (a) performing a sphere search so as to obtain an initial set of candidate vectors including a most likely candidate vector; and

       (b) computing a log-likelihood ratio for each of said bit positions, wherein each said ratio is based on values of a cost function computed for at least some candidate vectors belonging to the initial set, and on values of the

10   cost function for at least some further candidate vectors constructed by flipping one or more bits of the most likely candidate vector.